

REMARKS

Claims 13-35 are pending in this application. The Examiner has rejected claims 1-3, 5, 6, 9-12 under 35 U.S.C. 102(b) and rejected Claim 7 under 35 U.S.C. 103(a). Claims 1-12 are cancelled by this amendment. Claims 13-35 are introduced.

Drawings

Subject to the approval of the Examiner, the Applicants submit herewith formal drawings (Figure 1) to replace the drawings filed on May 4, 2001. If the replacement drawings for any reason are not in full compliance with the pertinent statutes and regulations, please so advise the undersigned.

Specification

The title of the invention has been amended to comply with Examiner's request to read "POLARIZATION MODE DISPERSION EMULATOR."

Claim Objections

Claims 1-12 are cancelled by this amendment; claims 13-35 are being introduced and correspond to the cancelled claims as listed in the table below. Additional support for Claims 13, 24, 35 can be found in the specification, paragraph [0023] and Figure 1. Now new matter has been introduced by this amendment.

New Claim	Corresponding Cancelled Claim
Claim 13	Claims 1, 4
Claim 14	Claim 2
Claim 15	Claim 3
Claim 16	Claim 5
Claim 17	Claim 6

Claim 18	Claim 7
Claim 19	Claim 8
Claim 20	Claim 9
Claim 21	Claim 10
Claim 22	Claim 11
Claim 23	Claim 12
Claim 24	Claims 1, 4
Claim 25	Claim 2
Claim 26	Claim 3
Claim 27	Claim 5
Claim 28	Claim 6
Claim 29	Claim 7
Claim 30	Claim 8
Claim 31	Claim 9
Claim 32	Claim 10
Claim 33	Claim 11
Claim 34	Claim 12
Claim 35	Method of apparatus of Claims 1, 4

Claim Rejections under 35 U.S.C. § 102, and § 103

The Examiner has rejected claims 1-3, 5, 6, 9-12 under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,430,454 to Refregier et al. (hereafter “Refregier”) and Claim 7 under 103(a) as being unpatentable over Refregier in view of EP 0 376 449 to British Telecomm (hereafter “BT”).

Newly introduced independent claims 13, 24 and 35 incorporate all limitation of cancelled claim 4. Examiner stated in his rejection that claim 4 is allowable specifying that “there is no suggestion in Refregier, nor does it appear that it would have been obvious, to use

the non-utilized input connector of the second polarization splitter/combiner element as an input connector for the light signal emitted from the element.” Office Action of June 17, 2004, page 6, paragraphs 11 and 12. Therefore claims 13, 24 and 35 are patentable over Refregier.

Moreover, in his rejection Examiner stated that “Refregier discloses a device comprising: . . . an element (P2) which twists the polarization main axes ahead of and behind the element toward one another by an appropriate angle.” The Applicants respectfully disagree.

The elements P1 and P2 of Refregier are “spatial polarizers or spatial modulators of polarization such that a beam has its polarization spatially modulated. One way of producing these polarizers is to use liquid crystal cells in which each image element allows the rotation of the polarization of a portion of beam.” Refregier, col. 8, ll. 45-51. Such polarizer by nature eliminates an unwanted part of polarization by absorbing or reflecting it. Such polarizer cannot be used in place of a twisting element of the present invention, since the twisting element has to be transparent to all polarizations. Elimination of polarization component by a polarizer would lead to an unacceptable optical loss. The device of Refregier is designed to generate a single delay to the transmitted signal, and the Refregier polarizers allow to transmit only a single polarization component of the beam.

Therefore Refregier does not teach “a system for producing a presettable polarization mode dispersion, comprising a twisting element” as required by Claims 13, 24 and 35 and these claims are patentable over Refregier.

Claims 14-23 depend on claim 13, and claims 25-34 depend on claim 24 and therefore are allowable for at least the same reasons as Claims 13 and 24.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916. If the Examiner has any questions, the Examiner is invited to contact the signing attorney at 650-849-6622 or by email at gary.edwards@finnegan.com.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: November 11, 2004

By: 

Gary J. Edwards
Reg. No. 41,008